

**Response on the merits to the outstanding Official Action**

**AMENDMENTS TO THE SPECIFICATION:**

Page 5, amend the paragraph beginning at line 18 as follows:

~~Fig. 1~~The figure shows a simplified circuit diagram of the PMT circuit.

Page 5, amend the paragraph beginning at line 19 as follows:

Referring to ~~fig. 1~~the figure, the PMT circuit comprises a microcontroller, 1; an oscillator circuit, 2, comprising a resistor R1, two capacitors C1 and C2, a transistor TR1 and an inductor L1; charging circuitry in the form of a Cockcroft Walton arrangement, 3, comprising nine diodes, D1 to D9 and nine capacitors C3 to C11; a photomultiplier tube, 4, comprising an anode, dynode stages S1 to S7 and a cathode, and sampling circuitry, 5 comprising resistors R2 and R3 and a comparator.